Appl. No. 10/663115 Attorney Docket No. 3831 P 004 Reply to Office Action of March 24, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A rail car cushioning device connected to a coupler, being switchable between a locked mode and a cushioning mode, comprising:

a housing comprising a hydraulic cylinder, a front head, a rear head and a reservoir, the hydraulic cylinder extends between the front head and the rear head defining a chamber;

a piston, comprising a piston rod extending through the front head into the chamber and a piston head carried in the piston chamber, the piston being responsive to buff and draft impacts, and the piston having a metering pin extending outwardly from the piston head towards the rear head and the rear head has an opening with an orifice disposed therein, the metering pin having a tapered cylindrical configuration adapted for engagement with the orifice; and,

a valve assembly in fluid communication with the cylinder including a valve body having an inlet opening and an outlet opening defining a passageway, a valve member interposed in the passageway being movable between an open position and a closed position to control fluid flow through the passageway.

- 2. (Original) The cushioning device of claim 1 wherein in a cushioning mode, the valve is in an open position enabling fluid to communicate between the cylinder and reservoir via the valve assembly enabling the piston to stroke between a first and second position in the cylinder in response to buff and draft impacts on a coupler.
- 3. (Original) The cushioning device of claim 1 wherein in a locked mode, the valve is in a closed position, preventing fluid from flowing though the valve assembly, preventing the piston from stroking, forming a relatively rigid structure.
- 4. (Original) The cushioning device of claim 1 wherein the valve assembly further comprises a valve actuator for controlling movement of the valve member.
- 5. (Original) The cushioning device of claim 1 further comprising a controller in communication with the valve actuator for controlling the valve.
- 6. (Original) The cushion device of claim 5 wherein the controller processes an indicating signal and transmits a commanding signal to the valve actuator to open or close the valve.

- 7. (Original) The cushioning device of claim 5 wherein a proximity sensor detects the movement of an approaching car and sends an indicating signal to the controller.
 - 8. (Cancelled)
 - 9. (Cancelled)
- 10. (Currently Amended) The cushioning device of claim 9 claim 1 wherein movement of the piston in a buff direction causes the metering pin to engage the orifice, thus continuously reducing the area of the orifice.
- 11. (Original) The cushioning device of claim 1 including a port extending through the piston head enabling fluid flow therethrough.
- 12. (Original) The cushioning device of claim 11 including an overload protection valve extending through the piston head.
- 13. (Original) The cushioning device of claim 1 wherein the piston head has a dynamic pressure seal connected to the outer surface of the piston head for preventing fluid from passing between the piston head and inner wall of the cylinder.
- 14. (Original) The cushioning device of claim 1 wherein the opening in the front head includes a rod seal disposed therein.
- 15. (Original) The cushioning device of claim 1 wherein the cylinder includes one or more ports located in the inner wall enabling fluid to flow between the cylinder and reservoir.
- 16. (Original) The cushioning device of claim 1 wherein the front head includes at least one channel extending between the reservoir and draft chamber enabling fluid to flow into the draft chamber during buff movement of the cylinder.
- 17 (Original) The cushioning device of claim 1 wherein the front head includes a channel extending from the upper portion of the reservoir and the draft chamber and a channel extending between the lower portion of the reservoir and the draft chamber.
- 18. (Previously Amended) The cushioning device of claim 1 further comprising at least one channel extending between the reservoir and draft chamber enabling fluid to flow into the draft chamber during buff movement of the cylinder.
 - 19 (Cancelled)
- 20. (Original) The cushioning device of claim 1 wherein in a locked mode, fluid flows between the reservoir and cylinder enabling the piston to return to a first position.
- 21. (Previously Amended) The cushioning device of claim 1 wherein the controller receives a signal from the locomotive indicating impending train movement the controller sends a signal to the actuator switching the device into a locked mode.

- 22. (Original) The cushioning device of claim 1 including one or more ports located in the inner wall proximate to the front head enabling fluid flow between the reservoir and the draft chamber.
- 23. (Original) The cushioning device of claim 1 including one or more ports located in the inner wall proximate to the rear head enabling fluid flow between the reservoir and the buff chamber, and a one-way check valve disposed in the port enabling fluid to flow into the buff chamber from the reservoir during draft movement of the piston.
- 24. (Currently Amended) A rail car cushioning device being switchable between a locked mode and a cushioning mode, the cushioning device comprising:
- a housing including a cylinder, front head and rear head, defining a hydraulic chamber and reservoir;

including a front head and rear head, the front head having an aperture adapted to receive a piston rod, the rear head having a first opening defining a passageway a and a second opening defining an orifice adapted to receive a metering pin;

the cylinder extending between the front head and rear head to define a hydraulic chamber adapted to receive a piston;

a reservoir adjacent to the cylinder including at least one relief port enabling fluid communication the cylinder, said relief port controlled by a check valve;

a valve assembly adjacent to said rear head comprising, a valve body having an inlet opening and an outlet opening defining a passageway for fluid to flow therethrough, a lockout valve member interposed in said passageway having a valve actuator responsive to a control signal to open and close said valve member;

a piston assembly including a piston rod extending through the front head into said chamber, a piston head connected to said rod being carried in said chamber including at least one piston seal for providing sealing contact with the inner wall of said chamber, a metering pin extending from the piston head for cooperative engagement with said orifice, the metering pin having a tapered cylindrical configuration adapted for engagement with the orifice; and,

wherein when said valve member is in an open position, said piston is movable in said chamber enabling impact protection and when said valve member is in a closed position, the pressure in the chamber prevents the piston from stroking, thereby locking the device.

25. (Cancelled)